AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method ~~for creating~~ of modeling muscular tissue with active finite elements, the method comprising ~~the steps of~~:

a) constructing ~~the~~ a plurality of active finite elements ~~with~~, each active finite element including a ~~combinations of~~ motor ~~elements,~~ element and at least one passive element connected to and interacting with the motor element, the at least one passive element being selected from the group consisting of dashpot elements and spring elements~~;~~;

~~b) defining the motor element using a time series function, and~~

c) constructing a model ~~with~~ of muscular tissue comprising the plurality of the active finite elements, with the plurality of active finite elements interconnected; and

d) analyzing the model ~~using a finite element code~~ to predict movement and interaction of the muscular tissue.

Claim 2 (Cancelled).

3. (Currently Amended) The method of Claim 1 wherein said active finite elements are one-dimensional ~~or two-dimensional or three-dimensional~~.

4. (Currently Amended) The method of Claim 1 wherein ~~the shapes of~~ said active finite elements are at least one of linear, triangular, rectangular, quadrilateral, pentagonal, hexagonal, octagonal, decagonal, polygonal, tetrahedral, pentahedral, hexahedral, octahedral, decahedral ~~or~~, and polyhedral.

Claim 5 (Cancelled).

6. (New) The method of Claim 1 wherein said active finite elements are two-dimensional.

7. (New) The method of Claim 1 wherein said active finite elements are three-dimensional.